

**Commonwealth of Kentucky**  
**Division for Air Quality**  
**PERMIT STATEMENT OF BASIS**

Title V/Synthetic Minor draft permit, No. V-99-065

**WKEC-D. B. WILSON STATION**

Island, Kentucky 42350

November 24, 1999

DANNY BALLARD

**SOURCE DESCRIPTION, CONTROL EQUIPMENTS & CONSTRUCTION DATE:**

- E. Unit 01: Dry-bottom, wall-fired, pulverized coal-fired unit equipped with electrostatic precipitator, flue gas desulfurization unit and low NO<sub>x</sub> burners constructed on or after December 1978. Secondary fuel is petroleum coke.
- E. Unit 02: Coal handling system includes barge/railcar unloading, transfer towers, sample tower, coal crusher, conveyors, and tripper transfer tower constructed on or after December 1978.
- E. Unit 03: Coal handling operations include coal stockpiles and haul roads constructed on or after 1978.
- E. Unit 04: Ash and sludge handling operations include fly-ash truck loadout, sludge conveyors, sludge stockpile, sludge truck loadout, and haul roads constructed on or after December 1978.
- E. Unit 05: Cooling tower constructed on or after 1978.

**REGULATION APPLICABILITY:**

All the applicable regulations to the emission units are listed in the permit. The following regulations are not applicable based on definition or size of emission units, or applicability date of regulations.

Regulations not applicable to emissions unit 1 due to applicability date or size of unit:

Regulation 401 KAR 61:015, Existing indirect heat exchangers applicable to an emission unit with a capacity of more than 250 mmBTU per hour and commenced before August 17, 1971.

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Regulation 401 KAR 59:015, New indirect heat exchanger, incorporating by reference 40 CFR 60 Subpart D, Standards of performance for fossil-fuel-fired steam generators, applicable to an emission unit with a capacity of more than 250 MMBTU per hour and commenced on or after August 17, 1971.

Regulation 401 KAR 60:005, which incorporates by reference the federal regulation 40 CFR Subpart Db, Standards of performance for industrial-commercial-institutional steam generating units with a maximum heat input capacity than 100 mmBTU/hour and constructed after June 19, 1984.

Regulation 401 KAR 60:005, which incorporates by reference the federal regulation 40 CFR Subpart Dc, Standards of performance for small industrial-commercial-institutional steam generating units with a design maximum heat input capacity of 100 mmBTU/hour or less and greater than or equal to 10 mmBTU/hour and constructed after June 9, 1989.

Regulations not applicable to emissions unit 5 (cooling towers):

Regulation 401 KAR 63:002, which incorporates by reference the federal regulation 40 CFR 63, Subpart Q, National emission standards for hazardous air pollutants for industrial process cooling towers.

**COMMENTS:**

- This source is subject to acid rain requirements and the Division has issued Phase II acid rain permit for this facility; Permit Number: A-99-001.
- The permittee may assure compliance with sulfur dioxide allowable standard for emissions unit 1 by using continuous emission monitoring data.
- The permittee may assure compliance with nitrogen dioxides allowable standard for emissions unit 1 by using continuous emission monitoring data.
- Emissions Unit 1 is equipped with a sulfur dioxide scrubber which makes it difficult to read opacity using Reference Method 9. Thus, the permittee may assure compliance with the opacity standards for this emissions unit using data collected by COM in lieu to Reference Method 9.
- The permittee will be required to conduct at least two particulate performance test for emissions unit 1 to demonstrate compliance with allowable standards within the term of this permit. The permittee may assure continuing compliance with particulate standard using COM data as an indicator as described in the permit. Additional stack tests for particulate may be required under the circumstances described in the permit.

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- Emissions unit 2 is subject to Regulation 401 KAR 60:005, which incorporates by reference the federal regulation 40 CFR Subpart Y, Standards of performance for coal preparation plants. The permittee may assure compliance with the opacity standard by assuring proper operation of the baghouses. Proper operation of the baghouses can be assured by daily qualitative observation of stack emissions. If visible emissions from any stack during visual observations are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment for any necessary repairs.
- Emissions units 3, 4, and 5 are subject to Regulation 401 KAR 63:010, Fugitive emissions and are considered to be in compliance when using control measures required by the regulation.
- The six hour averaging time associated with the particulate standard for emissions unit 1 and is applicable during compliance demonstration through performance test.
- The permittee shall submit a compliance assurance monitoring (CAM) plan for emissions unit 1 with an application for significant revision of emissions unit 1 or with the application for Title V permit renewal.
- On August 30, 1999, the Division for Air Quality received a formal objection from the U.S. EPA - Region IV regarding the issuance of the Title V permit for WKE - D. B. Wilson Station. Specifically, EPA concluded that the burning of petroleum coke, as proposed, is considered a modification pursuant to the prevention of significant deterioration (PSD) rules. Subsequently, WKE amended their proposal to burn petroleum coke by requesting a federally enforceable sulfur dioxide limit of 10,832 tons for any consecutive twelve months in order to preclude applicability of PSD (Regulation 401 KAR 51:017). Therefore, the division has prepared a draft Title V/Synthetic Minor permit for the public and EPA's review and considers EPA's formal objection resolved.